IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
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Dent	)
	)
Serial No. TBA	)
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Filed: TBA	)
	)
For: **MULTI-STAGE CDMA SYCHRONIZATION WITH PARALLEL EXECUTION**	)
	)
Attorney's Docket No. 4015-5139	)

Raleigh, North Carolina
June 23, 2003

Mail Stop PATENT APPLICATION
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Preliminary Amendment Accompanying DIVISIONAL Application

For the DIVISIONAL application of prior application 09/236,083, please make the following amendments to the claims.

In the Claims

Please cancel claims 29-54, 56-58, and 62.

Please add new claims as follows:

1. A method for transmitting a Code Division Multiple Access signal comprising:

transmitting paging information having a repetitive frame structure on a given frequency using a first spread-spectrum access code, said paging information being used to address specific receivers;

transmitting traffic information to individual receivers on said same given frequency using one of a set of second spread spectrum access codes

assigned to each receiver, said traffic transmissions overlapping in time with said paging information; and

periodically transmitting a narrowband signal having substantially narrower bandwidth than said traffic and paging transmissions with a periodicity related to said repetitive frame structure.

2. The method according to claim 1 in which said step of periodically transmitting a narrowband signal further comprises the step of:

transmitting a burst of unmodulated, continuous wave energy.

3. The method of claim 2 wherein said unmodulated burst comprises a sequence of chips set to the same value.

4. The method of claim 2 wherein said unmodulated burst comprises a sequence of chips set to a systematically phase-rotating value.

5. The method of claim 1 wherein said periodicity is once per frame.

6. The method of claim 1 wherein said periodicity has a sliding time relationship with said frame structure.

7. The method of claim 1 wherein said paging and said traffic frames comprise 16 slots, each slot comprising ten symbols of 256 chips, and wherein said narrowband signal occupies one said 256-chip symbol per slot.

8. The method of claim 7 wherein one of said 16 256-chip symbols comprising said narrowband signal is a continuous wave burst.

9. A base station, comprising:

A CDMA transmitter operative to simultaneously transmit, on a given frequency,

paging information having a repetitive frame structure and encoded with a first spread-spectrum access code, said paging information directed to a plurality of receivers;

traffic information encoded with a second spread spectrum access code, said traffic information directed one of said plurality of receivers; and

a narrowband signal having substantially narrower bandwidth than said traffic and paging transmissions, said narrowband signal being periodic, with a periodicity related to said repetitive frame structure.

10. The base station of claim 9, said CDMA transmitter further operative to transmit additional traffic information encoded with additional spread-spectrum access codes, said additional traffic information directed to others of said plurality of receivers.

11. The base station of claim 9 wherein said narrowband signal comprises periodic bursts of unmodulated, continuous wave energy.

12. The base station of claim 11 wherein said unmodulated burst comprises a sequence of chips set to the same value.

13. The base station of claim 2 wherein said unmodulated burst comprises a sequence of chips set to a systematically phase-rotating value.

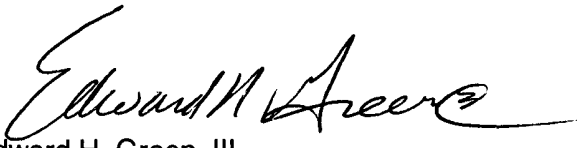
14. The base station of claim 9 wherein said periodicity is once per frame.

15. The base station of claim 9 wherein said periodicity has a sliding time relationship with said frame structure.

In the Specification

Please insert the following priority claim as the first sentence of the application: "This is a division of Application No. 09/236,083, filed January 25, 1999."

Respectfully submitted,
COATS & BENNETT, P.L.L.C.

By: 

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